BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company for Approval of the Manzana Wind Project and Issuance of a Certificate of Public Convenience and Necessity (U39E).	Application 09-12-002 (Filed December 3, 2009)

REPLY BRIEF OF THE DIVISION OF RATEPAYER ADVOCATES

[REDACTED VERSION]

CANDACE MOREY
MARCELO POIRIER

Attorneys for the Division
of Ratepayer Advocates

California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102
Phone: (415) 703-3211
Fax: (415) 703-2262
Email: cjm@cpuc.ca.gov

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I. Introduction

Pursuant to Rule 13.11 of the California Public Utilities Commission's ("Commission") Rules of Practice and Procedure ("Rules"), and the schedule set by Administrative Law Judge ("ALJ") Ebke, the Division of Ratepayer Advocates ("DRA") files this Reply Brief in the matter of the Application of Pacific Gas and Electric Company ("PG&E") for Approval of the Manzana Wind Project and Issuance of Certificate of Public Convenience and Necessity.

DRA's Reply Brief is directed solely to arguments in the Opening Briefs of PG&E and The Utility Reform Network ("TURN"). To the extent DRA has responded to the issues in its Opening Brief, DRA will not repeat its arguments here. Silence on any subject should not be interpreted as agreement or disagreement.

II. PG&E Cannot Dispute that the Project and/or the Required Transmission Upgrades Pose Risks To Condors

PG&E does not dispute (nor can it) that there is some risk that a California condor could be killed by the Project's turbines or that curtailment could be required if condors fly into the Project site during its proposed 30 years of operations. Instead, PG&E responds to DRA's concerns by emphasizing its belief that the risk of a condor death or Project curtailment is "remote" or "very low".[1] But a risk is a risk. Condors either will or will not fly onto the Project site and be put at risk by turbines. DRA's concerns are, if this risk comes to pass, who will pay? Is the Project cost competitive if its energy output must be reduced in response to environmental

[1] See PG&E Opening Brief at 41, 45, 47, 49.

concerns? Under PG&E's ratemaking proposal, ratepayers alone will bear all increased costs (through a higher, even less competitive levelized cost of energy) if the Project's energy generation is temporarily, seasonally, or permanently reduced due to impacts on condors. Ratepayers could also be left continuing to pay PG&E's shareholders a rate of return on turbines that are shut down.

Even if the risk of such an event is low, a risk still exists and ratepayers must be protected. Ratepayers are not adequately protected under the current proposal. Therefore, the Commission should ensure that adequate ratepayer protection mechanisms are in place in the event that Project operations are affected due to mortality of condors or other protected species. DRA suggested methods to assure ratepayer protection in its Opening Brief.[2] Alternatively, DRA would endorse TURN's proposal to adopt a price performance standard under which PG&E would recover a fixed price for energy produced by the Project, as discussed in Section V(6) below.

1. Both the United States Fish and Wildlife Service and the California Department of Fish and Game have expressed ongoing concerns regarding the Project's impacts on California condors

In addition to emphasizing its belief that risks to condors are low, PG&E responded to DRA's concerns that California condors may be impacted by the Project's operations by asserting that DRA did not offer expert testimony on the endangered species issue.[3] However, DRA did provide letters evidencing ongoing concerns about the Project's operations on condors from the United States Fish and Wildlife Service ("Fish and Wildlife Service") and the California Department of Fish and Game.[4] Both of these agencies should be considered experts on this issue, especially the Fish and Wildlife Service, which runs the condor recovery program. The letters from both agencies express detailed concerns regarding Project impacts on multiple protected species, including condors.[5] For example, in a letter written less than a year ago, the

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[2] DRA Opening Brief (Confidential), at 10-11.

[3] PG&E Opening Brief (Confidential), at 40, 49.

[4] Exhibit 101-C (DRA Direct Testimony), exhibits E, F and G.

[5] PG&E emphasizes that a letter from the Department of Fish and Game cited by DRA is over two years old. (PG&E Opening Brief (Confidential), at 40.) That letter expresses concerns regarding the Project and emphasizes that if a condor death occurs, all or part of the project is likely to be shutdown. (Exhibit

(footnote continued on next page)

Fish and Wildlife Service indicates its disagreement with Kern County's assessment that condors are absent from the Project site:

> We do not concur with your determination that the California condor is absent from the proposed refined project. The proposed refined project is within 2 miles of critical habitat for the California condor; additionally, California condors wearing global positioning system units have been recently identified less than 0.5 mile from the north end of the proposed refined project. Although these individuals did not enter the boundaries of the proposed project, California condors can easily transverse such short distances. Also, not all California condors wear global positioning system units; therefore, these observations do not include all areas that California condors may use.[6]

The Fish and Wildlife Service's concerns regarding the possible impacts of the Project on the condor population are ongoing despite Kern County's approval of a Final Environmental Impact Statement. The Fish and Wildlife Service has failed to issue a Final Biological Opinion four months after it was expected, and the opinion is necessary before SCE can begin upgrades to the TRTP including construction of the Whirlwind Substation.[7] The Fish and Wildlife Service is also apparently considering conducting a risk assessment regarding the effects of future Tehachapi wind projects on the condor, and has raised the question of whether certain wind projects in the Tehachapi area (specifically including the Manzana Wind Project) should be considered interrelated to the Tehachapi Renewable Transmission Project ("TRTP") under the federal Endangered Species Act.[8]

PG&E's conclusion that the Project will result in only a "remote" risk of condor mortality does not negate the serious concerns expressed by State and Federal Wildlife experts that the Project and TRTP may pose an ongoing threat to a fully protected endangered species.

(footnote continued from previous page)

101-C (DRA Direct Testimony), exhibit E.) PG&E overlooks the fact that the Fish and Wildlife Service letter to Sapphos Environmental (environmental consultant for the developer), dated November 12, 2010,

[6] Exhibit 101-C (DRA Direct Testimony), exhibit F (November 12, 2009 Letter from the Fish and Wildlife Service), p. 2.

[7] Exhibit 100, at 1, 7.

[8] Id.

2. PG&E's opinions on risk do not adequately address the likely increase in condor population over the expected entire 30-year Project life

Although PG&E claims that the Project will result in only a remote risk of condor mortality[9], it fails to address the potential ongoing impacts the Project may have as the condor population increases (as intended by the condor recovery plan) over the next 30 years. It is reasonable to assume the condor population will increase over the projected 30-year life of the Project due to the efforts of the recovery plan.[10] As their population increases over the next 30 years, condors may utilize even the small amount of foraging, nesting and roosting sites within the Project's boundaries as competition for sites elsewhere escalates.[11]

III. PG&E Has Not Proven that its Estimates or Proposed Classification of Disputed Capital Costs Are Reasonable.

1. The Commission should reduce the allowed amount of PG&E's owner's contingency

PG&E has contested DRA's recommended contingency for the Purchase and Sale Agreement and the Project Completion Agreement costs ("PSA and PCA costs") category, claiming its requested contingency is consistent with those of other utility owned generation.[12]

Although the requested contingency factor may be consistent with other utility owned generation, the Commission should consider the appropriate level in light of PG&E's other ratemaking requests regarding cost overruns. PG&E has made multiple requests for recovery of costs incurred beyond the requested contingency amount, often with minimal or no scrutiny, that shift a majority of the risks of any costs overruns for this Project to ratepayers.

For example, PG&E asks the Commission to place the burden of all of the cost increases attributable to transmission-based delays of commercial operations on ratepayers.[13] Additionally, PG&E requests authority to file an expedited advice letter for any increased costs that PG&E xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx for delays due to

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[9] PG&E Opening Brief (Confidential), at 41.

[10] PG&E/Ross-Leech, 3 RT 359: 11-16.

[11] DRA Opening Brief (Confidential), at 4-5.

[12] PG&E Opening Brief (Confidential), at 71.

[13] Exhibit 1-C (PG&E Prepared Testimony), at 5-9 to 5-10 and 7-16, lines 12-14.

completing transmission interconnection.[14] PG&E also requests authority to submit proposed Project cost increases, beyond the contingency amount, due to operational enhancements or changes in law through an "expedited" advice letter process.

2. The contingency amounts should be based on a category by category analysis

In response to DRA's recommendation regarding the contingency for the PSA and PCA costs category, PG&E argues in favor of applying a single contingency factor to the entire Project cost rather than applying multiple factors to different functions due the varying risk levels associated with different activities.[15]

As stated in its Opening Brief, DRA believes that a function by function - or more appropriately a category by category approach - is the most appropriate for determining Project contingencies. The activities related to the Project are divided into three distinct categories that appear to relate to the party primarily responsible for the activities in each category.[16] For example, PG&E is responsible for the construction of the transmission interconnection facilities, not Iberdrola.

In support of its argument for applying a single contingency factor, PG&E posits that certain activities will require higher risk factors and indicates that the Gen-tie interconnection project might require a xx percent contingency if a function by function approach is used.[17] First, it is not evident why a contingency factor of that level for this category should preclude the application of a contingency on a category by category basis. Applying a xx percent contingency to transmission (the need for which PG&E has not supported) is excessive in light of the Commission's recent adoption of a 15 percent contingency for the TRTP[18] as well as other precedent for transmission projects.[19]

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[14] DRA Opening Brief (Confidential) at 13, n.59.

[15] PG&E Opening Brief (Confidential) at 72-73.

[16] DRA Opening Brief (Confidential) at. 14-15.

[17] PG&E Opening Brief (Confidential) at 72.

[18] D.09-12-044 at 72-73.

[19] For example, D.08-12-058 adopted a contingency of 18.35% for SDG&E's Sunrise Powerlink Project. See D.09-12-044, at 72, fn. 167. D.07-01-040 adopted a contingency of "almost 15%" for SCE's Devers-Palo Verde No. 2 Project. See D.07-01-040 at 46 and 102. D.01-12-017 adopted a contingency of 14.6% for PG&E's Northeast San Jose Project. See D.01-12-017 at 15 and 31.

Second, the xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx of the requested contingency in each of the three categories provides ample reason to apply category by category scrutiny of each requested contingency amount, rather than applying a uniform contingency. The "PSA and PCA costs" of $xxxx million xxxxxxxxxxxxxxxxxxx of the Project's $911 million capital cost, while "Transmission Interconnection costs" ($xxxx million) and "PG&E costs" ($xxx million) account for xxxxxxxxxxxxxxxx of the Project's capital cost.[20] Even assuming, *arguendo*, that the contingency factor for either "Transmission Interconnection costs" or "PG&E costs" is higher than xxxxxx, the impact on the total Project cost would be xxxxxxxxxxxxxxxxxxxxxxxxxx a commensurate increase to the "PSA and PCA costs" category since the base amounts of these categories are xxxxxxxxxxxxxx than that of the "PSA and PCA costs" category.

3. PG&E cites no authority that requires classifying payments related to the xxxx as a capital cost added to rate base, rather than as an expense.

PG&E's Opening Brief offers only one new argument against DRA's recommendation that the Commission classify payments related to the xxxx as an expense, rather than as a capital cost. PG&E asserts that while DRA assumes that payments made over time would have been expensed, "[i]n PG&E's view, payments…whether made in a lump sum or spread out over time, are properly characterized as capital costs."[21] PG&E offers no legal authority for this position—just as it offers no legal authority for its assertions that the payment to eliminate the xxxxx is a capital cost under the unspecified "accounting rules."[22] Indeed, PG&E has never cited any specific accounting rule that require the Commission to classify a payment like the xxxxx as a capital cost, as opposed to directing PG&E to recover this cost as an expense. The xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxx. The Commission can, and should order PG&E to classify any payments relating to the xxxx as an expense rather than a capital cost.

[20] Exhibit 1-C (PG&E Prepared Testimony) at 5-2 (Table 5-1).

[21] PG&E Opening Brief (Confidential) at 68-69.

[22] PG&E Opening Brief (Confidential) at 66, 67.

Further, PG&E attacks DRA's witness by asserting that she "admitted that the extent of her training and expertise on ratemaking issues was a one week seminar."[23] This misconstrues DRA's witness's testimony. Ms. Shmidt responded to PG&E's questions about her expertise in ratemaking by offering two examples detailing her experience, stating "I have participated in some proceedings that have involved ratemaking" and further "I have attended the ratemaking training put on by the National Association of Regulatory Commissioners."[24] The Commission should afford no weight to this attempt to discredit DRA's witness by misconstruing her testimony.

IV. PG&E's Requests for Additional Authorities to Increase Project Costs are Not Reasonable.

1. PG&E's proposed alternative interconnection plan is speculative and does not eliminate risks that cost increases will result from delays in commercial operations

PG&E claims that the prognosis for completing the Whirlwind Substation on schedule has improved significantly, xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx[25] PG&E cites xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxx.[26] However, the cited xxxxx is a xxxxxx and a xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxx. Therefore, nothing is xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxx.[27] Furthermore, the alternative interconnection agreement must be xxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx.[28] Therefore, there is no guarantee that interconnection of the Project will occur on schedule.

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[23] PG&E Opening Brief (Confidential) at 68.

[24] DRA/Shmidt, 3 RT 405:6-22.

[25] PG&E Opening Brief (Confidential) at 32.

[26] PG&E Opening Brief (Confidential) at 33.

[27] Exhibit 103-C (xxxxxxxxxxxxxxxxxxxxxxxxxxxx), p. 80.

[28] Exhibit 103-C (Data Response) p. 3.

2. Commission precedent does not support PG&E's proposed mechanism for recovery of delay costs

In support of its proposed delay adjustment mechanism for the Project, PG&E cites to the settlement agreement regarding the Gateway Generating Station approved by the Commission in D.06-06-035.[29] However, as recognized by PG&E, under Rule 12.5 of the Commission's Rules of Practice and Procedure, a settlement agreement cannot serve as binding precedent.

In addition to being prohibited by Rule 12.5, the use of the settlement agreement regarding the Gateway Generating Station as precedent is counter to the express terms of the settlement agreement itself, which stipulate that the "[s]ettlement agreement represents a compromise of respective litigation positions and is not intended to establish binding precedent for any future proceeding."[30] Therefore, Commission should not consider the settlement agreement regarding the Gateway Generating Station, pursuant to the Commission's Rules and the express terms of the settlement agreement.

PG&E also cites to an instance where the Commission authorized it to file an application to recover additional capital costs due to delay instead of the currently proposed mechanism.[31] While this approach may provide more of a review of the delay costs than the currently proposed approach, it does not address the problem of a negotiated contract structure that places all of the risk and burden to fund delays on ratepayers because the agreement: (1) was based on a highly unlikely schedule, (2) provided very little flexibility to adjust to delays and (3) xxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx as early as possible.[32] In order to address the inequitable burden of the current proposal on ratepayers, the Commission should adopt DRA's proposal that the recovery of Allowance for Funds Used During Construction ("AFUDC") costs attributable to a delay in commercial operations due to transmission interconnection delays should be calculated based on the 90-day commercial paper rate.[33]

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[29] PG&E Opening Brief (Confidential) at 101.

[30] D.06-06-035 at 10 (Paragraph 21) (emphasis added).

[31] PG&E Opening Brief (Confidential) at 101.

[32] DRA Opening Brief (Confidential) at 35.

[33] Id.

V. The Project Should be Rejected Because it is Not Cost-Competitive Using Reasonable Estimates of the Project's Levelized Cost of Energy or Net Market Value.

1. PG&E cites no support for its assertion that net market value is the best measure of cost-competitiveness.

As in its Prepared and Rebuttal Testimony, PG&E's Opening Brief fails to compare the levelized cost of energy of the Project to wind or any other renewable projects at all. PG&E instead insists that the Project can be justified because it has a "competitive" net market value. PG&E does not even dispute DRA's Direct Testimony showing that the Project is not cost-competitive with other wind resources on a levelized cost of energy basis. Instead, PG&E's Opening Brief merely asserts its opinion that "net market value comparisons, as opposed to levelized cost of energy comparisons, are the best measure of cost-competitiveness."[34] But PG&E does not cite any Commission authority or other support for this statement. It states only that the Commission has approved PG&E's net market value methodology, which is included in PG&E's RPS Procurement Plans as a criteria considered in PG&E's least-cost, best-fit ("LCBF") ranking methodology.[35]

PG&E uses the net market valuation as one criterion in its LCBF evaluation process. But as PG&E's most recent RPS Solicitation Protocol states, "PG&E notes that the LCBF process is a <u>screening tool</u> that helps with an <u>initial selection</u> of projects. It is only upon shortlisting that substantive discussions with bidders can begin."[36] In addition to net market valuation, PG&E considers "portfolio fit," "credit," "project viability," and "RPS Goals" when developing a shortlist of projects.[37] Discussing the viability criterion, the Commission has noted:

> [W]e agree with PG&E and other parties that the project viability calculator is to be used as a screening tool, not to determine the exact merit of a particular project or contract. The output of the project viability calculator should be just one factor in the evaluation of projects for [least-cost best-fit] ranking. Utilities

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[34] PG&E Opening Brief (Confidential) at 10. See also id. at Sections III.B, III.C, III.D.

[35] Id. at 22; see also DRA Opening Brief (Confidential) at 43-44.

[36] See PG&E's 2009 RPS Solicitation Protocol, Attachment K at 16 (emphasis added) available at http://www.pge.com/b2b/energysupply/wholesaleelectricsuppliersolicitation/renewables2009/index.shtml . PG&E cited this and other RPS solicitation protocols, which were not otherwise offered into the Record, at its Opening Brief (Confidential) at 22, n.65.

[37] Id. at 2.

> ultimately remain responsible for the recommendations they make regarding projects to meet their RPS Program targets.[38]

PG&E's use of the net market valuation (or any LCBF criteria) as an initial screening tool is consistent with the Commission's discussions of PG&E's net market valuations in issued Resolutions approving renewable energy power purchase agreements ("PPAs").[39] But it does not suggest that the Commission has endorsed relying on a utility's LCBF analysis as the sole basis for finding the cost of a PPA or utility-owned renewable resource to be reasonable.[40]

PG&E also cites the Assigned Commissioner's Ruling on Iberdrola's Motion the Quash (the "Quash Ruling") to support its argument that the Project is cost-competitive. That ruling, however, simply confirms that the "[t]he relevant point of comparison in order to make a reasonableness determination is to the <u>cost</u> ratepayers face, or are likely to face, for similar renewable projects."[41] "The term 'cost' as it is used in the Ruling and Scoping Memo refers to the costs born by ratepayers."[42] The costs ratepayers will bear are the rate increases resulting from PG&E's approved revenue requirement for the Project's capital costs and expenses—not the net market value PG&E has assigned to the Project. While approval of this Project would theoretically reduce the amount of renewable energy procured by PG&E elsewhere to meet its statutory RPS obligations, the net market value is <u>not</u> an estimate of the competitive price of <u>renewable</u> energy. It is a rough estimate of what it would cost PG&E to xxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxx.[43] PG&E's witness was not even certain if its forward curves xxx

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[38] D.09-06-018 at 20 (citing PG&E Comments in R.08-08-009 filed Feb. 27, 2009).

[39] See DRA Opening Brief (Confidential) at 40-42.

[40] TURN also urges the Commission to pay close attention to the levelized cost of energy from comparable wind facilities as a reality check, and to be careful in relying on net market values because of the potential for bias and difficulty in truly understanding the Project's value using the net market value approach. See TURN Opening Brief (Confidential) at 14.

[41] Assigned Commissioner's Ruling Granting Motion to Quash Subpoena (May 19, 2010) at 4 (emphasis added).

[42] Id. at 3.

[43] PG&E/Lewis, 1 RT 139:3-8; PG&E/Jeung, 2 RT 271:13-16. Indeed, PG&E criticized DRA for comparing the Project to the Market Price Referent ("MPR") because it is "a calculated value that represents the forecast price of electricity from a newly constructed non-renewable energy source. The MPR does not reflect the competitive price for renewable energy." PG&E Opening Brief (Confidential) at 27. This same critique applies to PG&E's net market value. Further, renewable contracts priced at or below the MPR may be deemed per se reasonable. DRA's Direct Testimony demonstrates that xxxx

(footnote continued on next page)

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx.[44] A simpler way to measure the costs to ratepayers without introducing the uncertainty and unexplained biases inherent in the net market valuation is to evaluate levelized energy cost.

As detailed in DRA's Opening Brief, the Project should be compared to competing wind resources based on the maximum estimated levelized cost of energy, consistent with the Commission's directives and the regular practice of the Energy Division.[45] The net market value may be relevant for determining whether it was fair and reasonable for PG&E to engage Iberdrola in bilateral negotiations, outside of the RPS Solicitation process, but the Commission's use of net market value in this proceeding should be limited to evaluating that fact.

2. Whether the Project is cost-competitive should be determined based on a comparison to other wind projects.

PG&E asserts that the costs of the Manzana Wind Project should be compared to all other renewable technologies based on the Quash Ruling.[46] The Quash Ruling, however, did not purport to expand the scope of this proceeding as it has been defined in the Assigned Commissioner's Ruling and Scoping Memorandum ("Scoping Memorandum"); it decided that DRA's discovery requests of Iberdrola, a <u>non-party</u> to the proceeding, were beyond the scope. Moreover, it does not support PG&E's position.

The Quash Ruling repeated the Scoping Memorandum's directive that the Commission must determine reasonableness based on a comparison to "similar renewable projects," not <u>all</u> renewable projects. The Scoping Memorandum directs the Commission to determine the Project's cost competitiveness compared to "other similar renewable <u>wind resources</u>", "such as potential <u>utility-owned renewable</u> energy projects; other <u>wind projects</u> that are already or are expected to come online in the Tehachapi region, California, or the Western Electricity

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(footnote continued from previous page)

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[44] PG&E/Lewis, 1 RT 140:10-25.

[45] DRA Opening Brief (Confidential) at 40-42.

[46] PG&E Opening Brief (Confidential) at 23-24.

Coordinating Council area; other wind projects developed and built by Iberdrola."[47] The Scoping Memorandum also directed PG&E to serve supplemental testimony "which restricts the comparison of Manzana only to other wind resources but otherwise replicates the analysis chapter 4." Chapter 4 of PG&E's Prepared Testimony presented tables showing the levelized, post time-of-delivery adjusted prices and net market values of PG&E's recently executed renewable contracts and offers from its 2009 RPS shortlist. By focusing again on non-wind projects, PG&E's seeks to improperly expand the Commission's analysis beyond the issues identified for consideration in the Scoping Memorandum.

Moreover, PG&E proposes to own and operate an entire wind plant—not to purchase electricity actually delivered to the grid for a pre-determined price—and its shareholders will reap significant profits at ratepayer expense if this estimated $911 million Project is added into rate base. The proposed price of this turnkey Project could be evaluated in comparison to an expected or observed reduction in the price of utility-owned renewable projects compared to privately-owned PPAs for any technology, as directed by the Scoping Memorandum. Unfortunately there is little information currently available to the Commission regarding the expected cost of utility-owned renewable projects. The information that is available suggests that a comparable utility-owned project should be less expensive than PPA alternatives.

As TURN's Opening Brief noted, its uncontested testimony demonstrated that if the Project were proposed as a PPA rather than a turnkey project, it could yield much lower prices.[48] Further, for wind projects shortlisted from PG&E's 2009 RPS Solicitation that were offered as xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxx and has a xxxxxxxxxxxxxxxxxxxxxxxxx net market value, as shown in Table 1 below. Given the dearth of information on the expected price differential between utility and private projects, the Commission should at the very least restrict its consideration to wind energy prices as directed by the Scoping Memorandum.

[47] Scoping Memorandum at 4-5 (emphasis added); see also Quash Ruling at 2-3;

[48] See TURN Opening Brief (Confidential) at 13.

Table 1– Comparison of Price of Wind Projects from PG&E's 2009 RPS Shortlist offered as xxxxxxxxxxxxxxxxxxxxxxxxx

	xxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxx		xxxxxxxxx xxxxxxxxxxxxxx	
	LCOE, postTOD ($/MWh)	Net Market Value ($/MWh)	LCOE, post-TOD ($/MWh)	Net Market Value ($/MWh)
xxxxxxxxxxxxxxx	xxxxxx	Xxxxx	xxxxx	xxxxxx
xxxxxxxxxxxxxxx	xxxxxx	Xxxxx	xxxxxx	xxxxxx
xxxxxxxxxxx-xxxxxx	xxxx	Xxxx	xxxx	xxxxx

Source: Exhibit 1-C Table 4-2.

3. PG&E fails to rebut the evidence contradicting the reasonableness of PG&E's assumed net capacity factor and project life.

At hearings and in written discovery, both DRA and TURN have brought forward significant evidence that PG&E's assumptions regarding net capacity factor and project life are optimistic or even unrealistic. In both cases, PG&E's assumptions are not supported by (or worse, actually contradict) technical data and analyses of record in this Proceeding. Further, PG&E's estimated O&M costs for the last decade of the Project's life are based on nothing more than xxxxxxxxx.[49] PG&E's Opening Brief, like its written and oral testimony, fails to rebut DRA and TURN's evidence on these issues.

In support of its assumed net capacity factor, PG&E again relies on the unsupported hearsay testimony of Mr. Lewis to contradict PG&E's meteorological expert and the fact that General Electric eventually provided PG&E with a mechanical loads analysis, which says nothing more than xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx.[50] PG&E also points to the fact that its net capacity factor value is calculated using 8 years of meteorological data. This is a red herring; it is indisputable that <u>xxxxx</u> of the net capacity factor analyses provided by PG&E estimated a capacity factor for turbines xxxxxxxxxxxxxxxxxxx. Yet, even using PG&E's expected turbine failure rates, the overall net capacity factor of the Project would be expected to xxxxxx in the last 10 years of project operations. PG&E forecasts

[49] For supporting citations, see DRA Opening Brief (Confidential) at 48-57; TURN Opening Brief (Confidential) at 15-18.

[50] See PG&E Opening Brief (Confidential) at 27-29.

a xx percent xxxxx in the annual turbine failure rate from years 20 to 30 (increasing from x percent per turbine per year in year 20 to x percent in years 26-30).[51] It follows that the Project would experience a lower turbine availability (and hence capacity factor) as the turbine failure rate xxxxxx and more xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx.

In support of its assumed 30-year Project life PG&E repeats its irrelevant statement that turbines are still spinning in the Altamont Pass.[52] PG&E also offers up Mr. Jones' testimony that he is aware of wind turbines in Pacheco Pass that have operated for 22 years or more. Like Mr. Lewis's testimony regarding the Altamont Pass, however, Mr. Jones had no specific information about the operations at Pacheco Pass except that the turbines are "xxxxxxxxxxxxxxxxxxxx xxxxxxxxx" because of their vintage.[53] But the GE 1.5sle is not your Father's wind turbine. For example, it operates with a xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx that were more common even just 6 years ago when the 1.5sle was introduced to the market.[54] This complexity may have caused the numerous xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxx.[55]

PG&E also points to Mr. O'Flanagan's testimony about the operating lives of "power plants of all types" to support a 20-year project life.[56] The only reasonable conclusions supported by this information (which is not documented in any way) are that (1) power plants that use different technologies have different asset lives, and (2) newer, renewable technologies such as solar photovoltaic and fuel cells have shorter than 30-year asset lives. PG&E also again admits that xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxx.[57]

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[51] See Exhibit 1-C (PG&E's Prepared Testimony) at 6-7.

[52] See PG&E Opening Brief (Confidential) at 37-39.

[53] PG&E/Jones, 2 RT at 245:1-16.

[54] See Exhibit 101-C at exhibit RR (DNV/GEC Report) at p. 8.

[55] Id. at 9.

[56] PG&E Opening Brief (Confidential) at 37-38 and n.160 (describing testimony of Mr. O'Flanagan).

[57] PG&E Opening Brief (Confidential) at 39

As TURN has noted, the assumed net capacity factor has "no meaning except to serve as an assumption used to calculate the LCOE." The same is true of the assumed project life, which has a significant impact on the LCOE. Yet both PG&E and Iberdrola have an incentive to make the Project look as attractive as possible for the purpose of gaining Commission approval.[58] Once approval is secured, neither PG&E nor Iberdrola will be held accountable for these assumptions. Nor will PG&E be held to its estimate of O&M costs that will be needed to keep the turbines reliably operating for 10 years beyond their design life.

4. Even using PG&E's set of "comparable" renewable PPAs and bids and based on a net market valuation, the Project is not competitive.

PG&E's Opening Brief fails to consider how changes to PG&E's major assumptions (project life, capacity factor, cost increases due to delays, and incomplete project build-out) affect the cost competitiveness of the Project—when considered on either a net market value (NMV) or levelized cost of energy (LCOE) basis. Instead, PG&E presents ranked results for the Project based using PG&E's optimistic estimate of the NMV. Table 1 of PG&E's Opening Brief presents the Project on a NMV basis compared to PG&E's long-term RPS contracts that have been executed or amended and filed within the 12 months prior to submittal of the Application. Table 2 of PG&E's Opening Brief presents the Project on a NMV basis compared to the renewable projects PG&E represents as having been included on its 2009 RPS RFO shortlist.[59] PG&E's analysis fails to even consider how Project would rank on a NMV basis if any of PG&E's underlying assumptions change.

In response to PG&E's Tables 1 and 2, in the following tables DRA shows how the Project's ranking would change using four different scenarios in which these key assumptions are varied. DRA presents the results for all renewable technologies to illustrate how xxxxx the Project compares in general (even considering all renewable technologies) when considering how high the Project costs could escalate if PG&E's key assumptions are incorrect. The results are ranked by NMV, but information on LCOE and the LCOE rankings are also provided.

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[58] See TURN Opening Brief (Confidential) at 17-18.

[59] PG&E Opening Brief (Confidential), Table 1 and Table 2.

Table 2. NMV and LCOE Ranking of Manzana Project Under Different Cost-Scenarios, Compared to PG&E's Long-Term RPS Contracts Filed Within 12 Months Prior to Submittal of the Application

(TABLE REDACTED)

Table 3. NMV and LCOE Based Ranking of Manzana Project Under Different Cost Scenarios, Compared to PG&E's Long-Term Offers on PG&E's 2009 RPS RFO Application

(TABLE REDACTED)

5. The Commission can and should reject the project because it <u>did</u> not result from a sufficiently competitive process.

PG&E claims that utility ownership of this Project is consistent with its strategy to "diversify" its renewable resource portfolio and that "it makes sense to mix also utility ownership and power purchase agreements."[60] However, PG&E does not cite any support for this blanket statement. Instead, PG&E repeats its citation to Commission authorities that emphasize and encourage utilities to propose <u>building</u>, owning and operating renewable generation—not simply buying completed turnkey projects. DRA's Opening Brief at addresses and explains why the authorities PG&E cites does not provide the blanket support for all utility owned generation ("UOG") as PG&E contends.[61]

Further, PG&E erroneously asserts that the Commission's oft-stated preference for competitive solicitations does not apply to renewable generation. Specifically, PG&E claims that "[i]n D.07-12-052, the Commission explained that certain general utility-owned generation requirements in that decision do not apply to renewable and other loading order or non-conventional resources."[62] PG&E's assertion of the law regarding UOG does not follow from the Decision. In footnote 233, the Commission noted under a section discussing "Policy Issues" for "UOG" the following:

> In addition, the discussion of UOG in the IOU LTPPs and subsequent intervenor and IOU testimony generally focused on utility ownership of conventional generation resources. The Commission recognizes that there are additional factors associated with utility ownership of renewable and other loading order or non-conventional resources that have not been fully vetted in this proceeding.[63]

However, in the portion of the Decision that focused specifically on "Circumstances for UOG Outside the RFO Process," the Commission indisputably clarified that the criteria for considering

[60] PG&E Opening Brief (Confidential) at 56-57, n.240 and n.241.

[61] DRA Opening Brief (Confidential) at 69-72.

[62] PG&E Opening Brief (Confidential) at 57, n.241 (citing D.07-12-052, at p. 197, n.233).

[63] D.07-12-052 at p. 197, n.233.

UOG proposals applies to "Preferred Resources." The Commission expressly defined "Preferred Resources" as including renewable resources.[64]

Nor has PG&E articulated any policy reason to relax the safeguards that the Commission has adopted to limit the risk that UOG projects stifle private investment in new generation resources. But rubber stamping PG&E's Application, the first ever proposal for wind UOG, would do just that. The Commission has recognized that, in the current hybrid market, UOG or ratepayer backed PPAs could harm the development of a competitive market for new generation.[65] There is no reason to treat wind differently from fossil generation. Wind is a mature technology that has been supported by decades of extensive private investment and development. Indeed, if the Commission relaxes the criteria for UOG wind technologies by approving this Project, it could create a precedent that ultimately could find its way back into the fossil realm. And it may undermine regulatory certainty created by requirements the Commission has adopted for UOG, which are aimed at addressing independent developers' concerns regarding the need to limit preferential treatment for UOG.

There can be no reasonable dispute that the Commission requires a utility that proposes UOG ownership of a "preferred" renewable resource to "request in its application to hold a competitive RFO for turnkey project development of the resource" or explain why it is inappropriate to hold a competitive solicitation for a PSA contract.[66] The Application can and should be denied because PG&E has failed to satisfy these requirements.

6. DRA endorses TURN's proposal to establish a capped levelized cost of energy for the project based on PG&E's estimate.

DRA continues to believe that the Project should not be approved because it did not result from a sufficiently competitive process and is not cost-competitive. DRA agrees with TURN, however, that if the Commission approves the Project it should adopt protections for ratepayers that are absent from PG&E's proposal to apply tradition cost-of-service ratemaking.[67]

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[64] See id. and n.240 ("preferred resources in order of preference are energy efficiency, demand response, **renewables**, distributed generation **and** clean fossil-fuel") (emphasis added).

[65] See id. at 200-201 (recognizing concerns related to UOG expressed by the IPP community).

[66] Id. at 211-212. ("In all cases, if an IOU proposes a UOG outside of a competitive RFO, the IOU must make a showing that holding a competitive RFO is infeasible.").

[67] See TURN Opening Brief at 21-22.

Specifically, DRA would endorse granting approval on the condition that PG&E's recovery for costs is limited to actual generation for the Project based on a pre-determined, established energy price for production over the first 30 years of operations. The established price could be set at PG&E's projected levelized cost of $xxxx/MWh in all years, although DRA would recommend adopting a lower cost cap that reflects DRA's proposed reductions to the estimated initial capital cost and operations and maintenance costs forecasts, which would bring the Project costs xxxxx xxxxx with other wind resources. Nevertheless, while DRA does not believe the Project is cost-competitive at PG&E's forecasted LCOE, capping PG&E's costs at its own predicted LCOE would at least address DRA's concerns that the costs ratepayers actually bear for the Project do not escalate to levels that are xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx approved by the Commission and the current offers for wind projects on PG&E's 2009 RPS shortlist. There are also numerous benefits to this approach.

First, adopting a cost cap will allow PG&E's shareholders to reap any profits that might be realized if the Project performs better than expected and for a full 30 years, while also ensuring price protections for ratepayers. It is consistent with the Commission's directive in D.07-12-052, which recognized the importance of flexibility in ratemaking associated with new generation resources.[68] It also addresses the concern the Commission has noted with the traditional cost of service ratemaking approach that it creates an asymmetric incentive for the utility because "any savings incurred in developing the project results in a decrease in capital expenditures for which the IOU does not receive a return on investment, while the IOU does receive a return on any cost overruns for which it receives Commission authorization."[69]

Second, adopting a cost cap would place PG&E in the same position in the hybrid market as independent merchant generators. Developers who are party to an approved PPA contract must explain and provide cash flow models documenting the need for price increases to the Commission and an Independent Evaluator report before a price increase can be approved.[70] Similarly, if PG&E finds that its revenue recovery under a $xxxxx/MWh price is insufficient to

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[68] D.07-12-052 at 219-221.

[69] Id. at 219. See also D.10-04-052 at 31 (noting that under a cost of service ratemaking utilities face an incentive to increase their capital costs, which may be at odds with ratepayer interests to keep capital costs in check).

[70] Resolution E-4199 at 23-24.

maintain the Project's operations, it could always file an Application with the Commission seeking approval for a cost increase. But approving PG&E's proposed cost-of-service ratemaking, including granting PG&E the authority to automatically recover increased costs caused by delay (without any limit) and to recover other cost increases via an "expedited" advice letter, could chill investment in independent projects. Investors will see the benefit of PG&E's guaranteed rate of return (8.79% on rate base and 11.35% on equity) for an extremely low risk investment compared to investments available through independent merchant generators.[71] Thus, subjecting PG&E to the same risks as private developers by imposing a price cap would send an appropriate signal to the market that IOU investors will not be given preferential treatment through regulatory guarantees.

Third, approving the Project contingent upon a pre-determined LCOE (and thus imposing cost performance requirements) will set an appropriate precedent as other utilities consider or prepare to submit applications for additional utility-owned renewable projects. PG&E has vigorously argued throughout this proceeding that its assumptions regarding net capacity factor and useful life are reasonable. It has emphasized its view that it is "highly likely" that the Project will be built out to a full 246 MW. PG&E has dismissed DRA's concerns that risks posed by the Project or the TRTP to Condors could delay commercial operations past December 31, 2011 or could require the curtailment of Project operations. PG&E repeatedly asserts that all of its assumptions underlying the estimated $xxxxxx/MWh levelized cost of energy are reasonable and prudent. Requiring PG&E's shareholders to stand by these assumptions will set a good precedent that all utilities submitting proposals for utility-owned renewable generation (particularly outside of any competitive solicitation) must present copnservative cost estimates. At the same time, utilities will have an incentive to not over-estimate a project's total capital and O&M costs at the risk of becoming too expensive compared to competing PPA offers for similar renewable technologies.[72]

[71] D.07-12-052 at 198-199 (noting comment of the Competitive Market Associates that UOG "devalue" private investments because utilities have preferential access to regulatory guarantees).

[72] DRA remains concerned, however, that this approach could allow utility staff who develop the UOG cost estimates for a proposed a PSA to have preferential access to information regarding renewable project prices, either from other staff or direct involvement in evaluating and selecting winning renewable project bids. This might enable a utility to inflate any estimated additional capital costs (on top of the PSA costs) and O&M costs to create a LCOE that meets the current market prices, rather than reflecting the utility's best estimates of projected costs. For example, PG&E's witness Mr. Jeung both sponsored

(footnote continued on next page)

Finally, using a benchmark tied to the initial capital cost and O&M forecasts that PG&E has developed for the Project will also avoid many of the concerns expressed by parties to A.09-02-019 (PG&E's Application for its solar photovoltaic ("PV") program) in response to the Commission's Alternate Proposed Decision adopting a performance based ratemaking approach.[73] In the Alternate Proposed Decision, the Commission proposed a setting a price cap on PG&E's annual revenue requirement (including O&M costs) for solar PV capacity installed for UOG projects, based on a weighted average price per kWh calculated from winning PPA bids in PG&E's annual RPS solicitations.[74] PG&E expressed concerns that calculating a revenue requirement based on PPA bids "ignores the fact that whether winning bids ultimately come online is far from certain" and could produce pricing that is "unduly aggressive and unrepresentative of the actual cost of energy from the projects developed under the PV Program."[75] Here, the revenue requirement could be based on PG&E's actual forecasted capital and O&M costs for this very Project. It need not be benchmarked against bids for proposed wind projects in PG&E's RPS solicitation that may currently have lower viability scores. Thus, the same concern does not apply in this case.

Nor is there any reasonable concern that PG&E's own forecasted LCOE "might not be indicative of what is required for PG&E to be willing to pursue these projects."[76] This concern is only valid if PG&E has not presented reasonable and prudent forecasts, in which case the Commission should have no concerns if PG&E declined to close the transaction with Iberdrola. Further, any of the purported benefits of utility ownership in this case are outweighed by the fact

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PG&E's testimony in support of the Project's cost-competitiveness and is also involved with negotiating long-term energy contracts and PG&E's Procurement Review Group. See Exhibit 1-C at GPJ-1; PGE/Jeung, 2RT at 283:7-17. DRA recommends that the Commission require utilities to develop a code of conduct to prevent utility staff who are involved with developing proposals for UOG projects—whether utility built or turnkey projects—from receiving sensitive information on merchant generator bids from staff who are involved with administering or managing RPS Solicitations, similar to the directive in D.07-12-052 at 206.

[73] D.10-04-052 at 23-24 (summarizing parties' concerns).

[74] Id. (discussing ratemaking approach adopted by the Proposed Alternate Decision of President Peevey in A.09-02-19, (Mailed January 26, 2010) at 22, 27-28).

[75] D.10-04-052 at 23.

[76] See D.10-04-052 at 24 (concerns of Solar Alliance/Vote Solar).

that the Project is not needed to fill any gap in the wind energy market, it does not xxxxxxxxxx xxxx on wind prices, and it does not provide any additional "degree of certainty and speed to market" that otherwise does not exist. If the Application is rejected, Iberdrola could easily repackage and bid the Project as a PPA.

DRA does not agree with TURN, however, that it would be acceptable to adopt a cost sharing mechanism to allocate 75% of costs above a $xxxx MWh benchmark to ratepayers and 25% to shareholders without any upper limit on the maximum cost that ratepayers could bear. The Project is not cost-competitive at the $xxxxx/MWh, and should not be approved at any higher LCOE. Further, DRA is concerned that a cost-sharing mechanism is unworkable in this instance because the accuracy of key assumptions—the assumed useful life, impact of turbine component fatigue on the net capacity factor, and projected O&M costs—will not be known for potentially 20 years. In the meantime, PG&E could recover near-term cost increases caused by delay or incomplete project build out. This would render meaningless the conditions imposed for approval and could leave ratepayers saddled with paying a disproportionate share of project costs in the future.

VI. Conclusion

For all the foregoing reasons, and for the reasons set forth in its testimony, DRA respectfully requests that the Commission adopt its recommendations as set forth in the Summary of Recommendations of DRA's Opening Brief.

Respectfully submitted,

CANDACE MOREY
MARCELO POIRIER

/s/ CANDACE MOREY

CANDACE MOREY

Attorneys for the Division of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102
Phone: (415) 703-3211
Email: cjm@cpuc.ca.gov

July 2, 2010

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of **REPLY BRIEF OF THE DIVISION OF RATEPAYER ADVOCATES [REDACTED VERSION]** to the official service list in **Application 09-12-002** by using the following service:

[X] **E-Mail Service:** sending the entire document as an attachment to all known parties of record who provided electronic mail addresses.

[ ] **U.S. Mail Service:** mailing by first-class mail with postage prepaid to all known parties of record who did not provide electronic mail addresses.

Executed on **July 2, 2010** at San Francisco, California.

/s/ Nelly Sarmiento

Nelly Sarmiento

SERVICE LIST – A.09-12-002

stephaniec@greenlining.org
loreleio@co.kern.ca.us
mdjoseph@adamsbroadwell.com
cjm@cpuc.ca.gov
mpo@cpuc.ca.gov
alazar@endangeredearth.org
matthew@turn.org
cmmw@pge.com
bcragg@goodinmacbride.com
ssmyers@att.net
mrw@mrwassoc.com
Yim@ZimmerLucas.com
joseph.ahn@ngc.com
mmac11@yahoo.com
HRasool@SempraUtilities.com
JWright@SempraUtilities.com
DNiehaus@SempraUtilities.com
eklebaner@adamsbroadwell.com
dtk5@pge.com
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LDRi@pge.com
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MWZ1@pge.com
Diane.Fellman@nrgenergy.com
cem@newsdata.com
wvm3@pge.com
regrelcpuccases@pge.com
dmarcus2@sbcglobal.net
enriqueg@greenlining.org
samuelk@greenlining.org
kdw@woodruff-expert-services.com
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dbp@cpuc.ca.gov
jbx@cpuc.ca.gov
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svn@cpuc.ca.gov
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ys2@cpuc.ca.gov
claufenb@energy.state.ca.us